

## Contents of Volume 61, 1992

VOL. 61, NOS. 1–2

SEPTEMBER 1992

### *Research Papers*

- Analysis of the Priestley–Taylor parameter  
A.R. Pereira and N.A. Villa Nova (Piracicaba, Brazil) . . . . . 1
- Energy balance of heterogeneous terrain: averaging the controlling parameters  
J.-P. Lhomme (Wallingford, UK) . . . . . 11
- Simulation of soil temperature in crops  
Y. Luo, R.S. Loomis and T.C. Hsiao (Davis, CA, USA) . . . . . 23
- Extreme wind speeds over a Sitka spruce plantation in Scotland  
R. Milne (Penicuik, UK) . . . . . 39
- On coherent structures in turbulence above and within agricultural plant canopies  
K.T. Paw U, R.H. Shaw, J. Qui (Davis, CA, USA), Y. Brunet, S. Collineau  
(Thiverval-Grignon, France), T. Maitani (Kurashiki, Japan) and L. Hipps (Logan, UT, USA) . . . . . 55
- Modeling the effects of elevated CO<sub>2</sub> on plants: extrapolating leaf response to a canopy  
J.F. Reynolds, J. Chen, P.C. Harley, D.W. Hilbert, R.L. Dougherty and J.D. Tenhunen  
(San Diego, CA, USA) . . . . . 69
- Soil heat flux estimation based on the finite-difference form of the transient heat flow equation  
B.S. Sharratt (Fairbanks, AK, USA), G.S. Campbell (Pullman, WA, USA) and D.M. Glen  
(Kearneysville, WV, USA) . . . . . 95
- The impact of large-scale atmospheric circulations and anomalies on Indian monsoon droughts  
and floods and on world grain yields — a statistical analysis  
E.R. Garnett (Winnipeg, Man., Canada) and M.L. Khandekar (Downsview, Ont., Canada) . . . . . 113
- Energy transfer over crop canopies: simulation and experimental verification  
R.F. Grant and D.D. Baldocchi (Edmonton, Alta., Canada) . . . . . 129

### *Short Communication*

- Accuracy of global radiation measurements at unattended, automatic weather stations  
G. Stanhill (Bet Dagan, Israel) . . . . . 151

### *Book Reviews*

- Forty Years of Progress and Achievement (A Historical Review of WMO). . . . . 157
- SWRRB A Basin Scale Simulation Model for Soil and Water Resources Management . . . . . 160
- Weather and Yield . . . . . 162
- Land management in arid and semi-arid areas . . . . . 163

VOL. 61, NOS. 3–4

OCTOBER 1992

### *Research Papers*

- Energy and water balances of developing vines  
H.R. Oliver and K.J. Sene (Wallingford, UK) . . . . . 167
- Water use efficiency of a cassava crop as affected by soil water balance  
N.R. Yao and B. Goué (Abidjan, Ivory Coast) . . . . . 187
- Canopy photosynthesis and evapotranspiration of rangeland plants under doubled carbon dioxide  
in closed-top chambers  
D. Nie, H. He, E.T. Kanemasu (Griffin, GA, USA), G. Mo and M.B. Kirkham (Manhattan,  
KS, USA). . . . . 205

Climate and weather variability at the Tea Research Foundation of Kenya	
W. Stephens, M.K.V. Carr (Bedford, UK) and C.O. Othieno (Kericho, Kenya) . . . . .	219
Yield variability at the Tea Research Foundation of Kenya	
C.O. Othieno (Kericho, Kenya), W. Stephens and M.K.V. Carr (Bedford, UK) . . . . .	237
An application of the vegetation-atmosphere coupling concept to the HAPEX-MOBHILY experiment	
J.-P. Pinty, P. Mascart, P. Bechtold and R. Rosset (Toulouse, France) . . . . .	253
A numerical model for simulating the temperature and moisture regimes of soil under different mulches	
H. Sui, D. Zeng and F. Chen (Beijing, People's Republic of China) . . . . .	281
<i>Comment</i>	
I.R. Calder (Wallingford, UK) . . . . .	301
<i>Reply</i>	
T.A. Costello (Fayetteville, AR, USA) . . . . .	305
<i>Book Review</i>	
Agroclimatology of the sugar-cane crop . . . . .	307